Symbiotic Relationships

By: Rebecca Mirochnik and Ilyse Aber

Symbiotic relationships exist in abundance in different ecosystems. For each of the three main types of symbiotic relationships, provide one example that best explains these relationships. Explain.

In a number of diverse ecosystems, organisms live in close relationships, depending on one another. These close relationships are called symbiotic relationships. Symbiosis is a necessary part of an organism’s life. While many organisms may benefit from the symbiotic relationship, their counterpart may also be benefitted, but may be harmed, or not affected at all. The three types of symbiotic relationships are as follows: mutualism, commensalism, and parasitism.

The first of the symbiotic relationships is called mutualism. In a mutualistic relationship, the organisms of both species benefit from this interaction. An example of this relationship is between the ant and the Acacia tree. Ants make their home in the Acacia and also eat its nectar. The ants not only have shelter, but also are getting nutrients. In return for this food and refuge, if another organism attempts to consume the Acacia, the ants attack, not only chasing away the organism, but also protecting the tree. Through this relationship, not only does one of the organisms benefit, but the other also gets something in return.

Another type of a symbiotic relationship is commensalism. In this type of relationship, one organism benefits, while the other orgnaism is not affected at all. An example of this type of relationshipo occurs between a remora fish and a shark. The remora fish has a limb similar to a suction cup that helps it attach itself to the shark. When a shark feeds, the remora fish eats the leftover scraps. Amazingly, the shark does not try to eat the remora, even though it has connected itself to the shark’s body. The remora fish benefits because it gets a meal, but the shark is not affected or harmed in any way.

The last type of symbiotic relationship is parasitism. In parasitic relationships, one organism benefits while the other is harmed. One example of parasitism occurs between a tapeworm and a dog. A tapeworm attaches itself to the dog’s intestines and feeds off of the dog’s digested food, getting food and shelter. The tapeworm benefits from this relationship, but the dog is harmed because it loses nutrients, experiencing vomiting, pain, and other symptoms. One of the species in these relationships gets a home and shelter, but with consequences to the species from which it is getting this.

Symbiosis, a close relationship with two organisms of different species, is essential to many organisms’ lives. Though one of the species benefits from these relationships, the other may be harmed or not even affected; they also could benefit, similar to the other organisms in the relationship. There are three types of symbiosis, including mutualism, commensalism, and parasitism. Symbiosis is one of the most crucial of organism relationsohips.